

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/032801

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H01J9/24 H01J17/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 H01J G02F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category ^a	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 04, 30 April 1999 (1999-04-30) & JP 11 007894 A (TOPPAN PRINTING CO LTD), 12 January 1999 (1999-01-12) abstract	1-4, 15-17
Y	-----	5-13, 18
X	US 5 772 486 A (SEKI ET AL) 30 June 1998 (1998-06-30) column 6, line 5 – line 21; figure 1 column 6, line 67 – column 7, line 15 -----	1-3
A	EP 1 306 872 A (TORAY INDUSTRIES, INC) 2 May 2003 (2003-05-02)	1
Y	abstract; figures 2, 4 paragraph '0009! – paragraph '0011! paragraph '0014! – paragraph '0022! paragraph '0068! – paragraph '0073! -----	18
		-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents:

- °A° document defining the general state of the art which is not considered to be of particular relevance
- °E° earlier document but published on or after the International filing date
- °L° document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- °O° document referring to an oral disclosure, use, exhibition or other means
- °P° document published prior to the International filing date but later than the priority date claimed

- °T° later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- °X° document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- °Y° document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- °&° document member of the same patent family

Date of the actual completion of the International search

Date of mailing of the International search report

9 February 2005

21/02/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL – 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Tano, V

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/032801

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 01/52299 A (3M INNOVATIVE PROPERTIES COMPANY; KIKUCHI, HIROSHI; YOKOYAMA, CHIKAFUMI) 19 July 2001 (2001-07-19) cited in the application the whole document	9-13
Y	US 5 972 564 A (KAWANA ET AL) 26 October 1999 (1999-10-26) column 3, line 20 - line 28 column 6, line 66 - column 7, line 10; claim 12	5-8

BEST AVAILABLE COPY

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No PCT/US2004/032801

Patent document cited in search report	Publication date	Patent family member(s)			Publication date
JP 11007894	A 12-01-1999	NONE			
US 5772486	A 30-06-1998	JP 8036163 A JP 3430666 B2 JP 8083051 A CA 2154219 A1 CN 1130783 A ,C EP 0693702 A1 SG 64844 A1 US 5684361 A			06-02-1996 28-07-2003 26-03-1996 22-01-1996 11-09-1996 24-01-1996 25-05-1999 04-11-1997
EP 1306872	A 02-05-2003	JP 2003132783 A CN 1414593 A EP 1306872 A2 TW 548683 B US 2003129546 A1 JP 2003331650 A			09-05-2003 30-04-2003 02-05-2003 21-08-2003 10-07-2003 21-11-2003
WO 0152299	A 19-07-2001	JP 2001191345 A AT 263428 T AU 3441501 A DE 60102566 D1 EP 1254476 A1 WO 0152299 A2 US 2003022585 A1 US 2004166760 A1			17-07-2001 15-04-2004 24-07-2001 06-05-2004 06-11-2002 19-07-2001 30-01-2003 26-08-2004
US 5972564	A 26-10-1999	JP 3510761 B2 JP 10269848 A			29-03-2004 09-10-1998